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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/029,023	12/28/2001	Michael J. Hopmeier		3820

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EXAMINER
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CROSS, LATOYA I

ART UNIT	PAPER NUMBER
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1743

DATE MAILED: 05/18/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/029,023

Applicant(s)

HOPMEIER, MICHAEL J.

Examiner

LaToya C. Younger

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 06 March 2006.  
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1-20 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.  
5) ☐ Notice of Informal Patent Application (PTO-152)  
6) ☐ Other: \_\_\_\_\_.

### DETAILED ACTION

This Office Action is in response to Applicants' reamarks filed on January 25, 2006 and the amendments filed on March 6, 2006. Claims 1-20 are pending.

#### *Withdrawal of Rejections from Previous Office Action*

- The rejection under 35 USC 112, first paragraph is withdrawn in view of Applicants' statement and references to the original specification of the location for support of the claim amendments from their previous submission.
- The obviousness rejections are withdrawn in view of Applicants' amendment to add the limitation of the a control station to provide the user with information on the activity of the sensors.

#### *Claim Rejections - 35 USC § 103*

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
2. Claims 1, 2, 5, 8, 9, 11-15 and 17-20 rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent 5,942,440 to Dooley et al in view of US patent 6,003,455 to Flamme et al.

Dooley et al teach a system and method for detecting contaminants in a water supply, such as lakes, ponds, streams, creeks, etc. These water supplies are considered to be geographical areas. The method involves placing a plurality of sampling units in the water supply at different locations. The sampling units absorb contaminants present in the water (col. 17, lines 13-36). After collection, the contaminants are analyzed by a gas analyzer, which may be directly connected to the

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sampling unit (col. 20, lines 51-53; col. 21, lines 27-30). The contaminants to be detected include those such as methane, benzene and petroleum-based products. See col. 1, lines 29-37; col. 3, lines 12-29 and col. 9, lines 3-15. With respect to claim 8, Dooley et al teach that any number of sampling units may be used to absorb contaminants. Increasing the number of sampling units used will enhance the contamination profile of the sample and allow for a more accurate determination of site-specific remediation (col. 26, lines 18-22). With respect to claim 15, where Applicants claim the additional step of taking action to protect the agricultural operation, Dooley et al teach that after the results of gas analysis are obtained, a pollution map is created and a plan for remediation is developed. With respect to claims 17 and 20, the gas analyzer provides a control system, connected to each of the sampling units that provide an output for the user on the results of the analyses. With respect to claim 19, the sampling unit allows a portion of the water supply to enter and the contaminants from that portion are absorbed and analyzed.

Dooley et al differ from the instant invention in that there is no disclosure of real-time, closed loop control monitoring of the sensors.

Flamme et al teach a real-time, closed loop system for monitoring and controlling various parameters in agricultural operations (col. 3, lines 8-29). The system comprises a sensor for measuring the actual value of each parameter, a closed loop control circuit for inputting a set point, means for receiving feedback signals representative of the value of the parameter and means for varying the control signal. The system further comprises a display device, connected to the sensor and control circuit, and configured to provide information to the user regarding the measured values of the parameters. The system of Flamme et al is disclosed as being capable of regulating and monitoring operating parameters during the agricultural operations. Thus, it would have been obvious to one of ordinary skill in the art to use a real-time, closed loop system for monitoring contamination in the method of Dooley, to provide a

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manner for monitoring and detecting contaminants in the agricultural environment constantly and providing a plan for remediation immediately after the analysis confirms that remediation is necessary.

Dooley et al further differ from the instantly claimed invention in that there is no disclosure of detecting contaminants in animals, such as cattle, chicken, ducks, horses, pigs or sheep. However, since Dooley et al teach detecting contaminants in a water supply system, such as lakes, ponds, streams and creeks, it would have been obvious to one of ordinary skill in the art to test animals that may consume water from these sources as well. For instances, where contamination may be found in the water supply, the animals that consumed the water may also be contaminated. Thus, it would have been obvious to extend the testing for contamination to the animals that consumed the water to determine which animals may have been contaminated and thus assure that no contamination is passed onto the humans who may consume the animal meat.

3. Claims 1-4, 6, 7, 9, 10-12, 15 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent 5,789,183 to Lee et al in view of US Patent 6,75,576 to Hall et al and Flamme et al (USP 6,003,455).

Lee et al teach a method for detecting and identifying rice blasts, spores and fungus in rice crops. The method also detects movement of spores into and within a specific area (col. 24, lines 59-67). The method uses field test kits having test wells that are coated with monoclonal antibodies, which serve as sensors for a particular rice blast race (col. 23, lines 61-67; col. 24, lines 1-44). Spores, blasts and fungus are all contaminants that may be used in biological warfare threats to crops. Lee et al teach that early detection of blasts, spores or fungus is necessary to eradicate the problem by using fungicides to save the crop (col. 2, lines 5-15).

Lee et al differ from the instant invention in that there is no disclosure of multiple sensors being dispersed within the rice crop fields.

Hall et al teach an on-site agricultural product analysis system. The system of Hall et al comprises dispersing multiple sensors at different locations throughout an agricultural field to determine the characteristics of the crop (col. 4, lines 40-63). The multiple sensors send data regarding the conditions of the crop to a central processor which is then posted on a display to be read by the user. In having multiple sensors located in various places throughout the fields, Hall et al teach that data regarding the conditions of the crops can be obtained remotely and in a faster amount of time than collecting samples and testing samples in a laboratory. Thus, it would have been obvious to one of ordinary skill in the art to disperse several portable sensors in the crop fields and remotely detect for the presence of blasts, spores or fungus that may be used in biological warfare. Having the sensors in the field would allow the tests to be conducted remotely (thus preventing harmful exposure) in a manner fast enough to detect the harmful agents and treat the problem or prevent further exposure.

Lee et al further differ in that the use of a real-time, closed loop monitoring system is not disclosed.

Flamme et al teach a real-time, closed loop system for monitoring and controlling various parameters in agricultural operations (col. 3, lines 8-29). The system comprises a sensor for measuring the actual value of each parameter, a closed loop control circuit for inputting a set point, means for receiving feedback signals representative of the value of the parameter and means for varying the control signal. The system further comprises a display device, connected to the sensor and control circuit, and configured to provide information to the user regarding the measured values of the parameters. The system of Flamme et al is disclosed as being capable of regulating and monitoring operating parameters

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during the agricultural operations. Thus, it would have been obvious to one of ordinary skill in the art to use a real-time, closed loop system for monitoring contamination in the method of Dooley, to provide a manner for monitoring and detecting contaminants in the agricultural environment constantly and providing a plan for remediation immediately after the analysis confirms that remediation is necessary.

*Response to Arguments*

4. Applicant's arguments filed on March 6, 2006 have been fully considered but are moot in view of the new grounds of rejection given above.

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to LaToya C. Younger whose telephone number is 571-272-1256. The examiner can normally be reached on Monday-Thursday 10:30 a.m. - 7:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jill A. Warden can be reached on 571-272-1267. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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**MONIQUE T. COLE**  
PRIMARY EXAMINER